

-1- (JAPIO)

ACCESSION NUMBER 85-262354

TITLE NEGATIVE ALLOY POWDER FOR MERCURY-FREE ALKALINE BATTERY

PATENT APPLICANT (2000353) TOSHIBA BATTERY CO LTD

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INT'L PATENT CLASS H01M-004/42; H01M-004/12; C22C-018/00

JAPIO CLASS 42.9 (ELECTRONICS--Other); 12.2 (METALS--Metallurgy Heat Treating); 12.3 (METALS--Alloys)

ABSTRACT PURPOSE: To obtain a negative zinc alloy powder free of mercury which has great ability to suppress hydrogen gas generation by restricting the content of lead and the variation in the content of lead to within specified ranges.

CONSTITUTION: The content of lead in a zinc alloy powder is adjusted to 0.01- 0.10wt% and the difference between the maximum and the minimum contents of lead is adjusted to 0.002wt%. When the amount of lead is less than 0.01wt% of the total amount of the zinc alloy, it has only insufficient ability to suppress hydrogen generation. While, when it exceeds 0.10wt% of the total amount of the zinc alloy, the heavy load characteristic and the utilization rate of the battery are deteriorated. It is necessary that the difference between the maximum and the minimum contents of lead be 0.002wt%. When this difference exceeds the above specified level, the alloy has decreased ability to suppress hydrogen gas generation even when the content of lead in the alloy is properly set.